

INITIAL SUCCESS IN ESTIMATING REARING-POND SHRIMP POPULATION

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In late 1971, Galveston Laboratory personnel of the National Marine Fisheries Service estimated shrimp-population size in four $\frac{1}{2}$ -acre ponds at Texas A&M's field research site near Angleton, Texas. The estimates were needed to determine shrimp-feeding rates. The lab did this at the request of Texas A&M University's Sea Grant Mariculture Program.

Shrimp from four ponds were injected with a fluorescent pigment-petrolatum mixture.

Marked shrimp were returned to the ponds. Then samples of shrimp were collected from each pond for population-size estimates according to the Petersen method. Then the ponds were drained and all shrimp counted. Estimates were within an average of 20% of the actual number of shrimp recovered after draining. The following table shows results obtained in the pond experiments:

Pond	Number Marked	Estimated	Population size	
			Actual	Difference in percent of actual population size
A	1,210	7,798	6,644	17
B	1,820	14,970	11,469	30
C	1,000	5,978	5,050	18
D	1,200	3,957	4,049	2
Combined	5,230	32,701	27,212	20

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